



Engineering Division

TOWN OF ARLINGTON
Department of Public Works
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August 26, 2022

Bid 22-38: 2021/2022 Water Distribution System Improvements - Various Locations

Addendum #1

Contract Specification Updates

1. Time of Completion

Delete the existing "Section II.D – Time of Completion" from the Contract Specifications:

The bidder must agree to commence work within thirty (30) business days from the date of signing the contract and to fully complete the project within the time specified within the Special Provisions section of this document.

And replace with "Section II.D – Time of Completion":

Due to current supply constraints for materials to be utilized in this project, the bidder must agree to commence work as soon as feasible following the date of signing the contract, but shall start and complete the project no later than the time specified within the Special Provisions section of this document unless otherwise approved by the Owner.

2. Work Hours

Add the following bullet point to "Section IV.R – Work Hours" of the Contract Specifications:

- *Lahey Arlington Service Work (#37 Broadway): work to complete temporary bypass or permanent service connections for this building shall occur on nights (Monday – Friday from 7:00 PM – 5:00 AM) or weekends (Saturday – Sunday from 8:00 AM – 4:00 PM).*

Bidder Question Responses

- 1. Q: Based on the current market, the infrastructure material required on the project have unusually long lead times. Especially the ductile iron pipe which could be up to and in excess of 24 weeks. Should this lead time remain unchanged how will the inability to obtain materials in a timely fashion be handled by the Owner? Will a contract time extension be issued? In addition, due to the volatile market material prices are increasing daily. How will the contractor be compensated for material escalation on the project?**

A: Understanding the current lead times, the Town has specified that work on this project does not need to begin until April 15, 2023, as noted in "Section VII.J. Time for Completion and Liquidated Damages" of the Contract Specifications. This provides approximately 32 weeks from the bid opening date to required start of work. Via this addendum, "Section II.D – Time of Completion" has also been updated to present consistency

for the contract time through the Contract Specifications. Should the bidder to which the contract is awarded be able to start sooner, this will be allowed by the Town. Requests for extensions to the start of work and completion of work dates will be considered by the Town on a case by case basis. Such requests shall be provided in writing and shall include a description of the hardship necessitating the extension. The Town anticipates that bidders will consider the time specified for work start and completion in their bids and obtain quotes for materials accordingly. The bidder will not be compensated further for material cost escalation.

2. **Q: The Measurement and Payment for water services indicates that all surface restoration, including replacement of asphalt pavement, asphalt and concrete sidewalks, landscaping and loam and seeding is incidental to the installation of the water service. Since the location of the proposed water services are not shown on the drawings, it is not possible to estimate the surface restoration for the services. With the proposed water services will be connecting to existing water services, the Town must have the location and size of each existing service, can the location and size of the proposed water services be provided?**

A: A majority of existing buildings in the project area are pre-1960s construction. In Arlington, buildings from this timeframe or older typically had their water service and sewer service installed in the same trench. As such, for estimating purposes, bidders shall assume that water services run parallel to the sewer services shown on the Contract Plans, from the existing water main to the curb stop (assume back of sidewalk for curb stop location and see individual plans for sidewalk material). Available water service tie-cards do not include the existing pipe size. For residential buildings, existing service size is typically 3/4-inch. The Town Standards were updated in 2022 and minimum water service pipe size has been increased from 3/4-inch to 1-inch resulting in the smallest size of new corporations, copper pipe, and curb stops being 1-inch. Contractors shall assume that all services are 1-inch pipe being connected to existing 3/4-inch pipe beyond the curb stop, with the exception of properties expected to have larger services. A list of properties expected to have 2-inch services are noted below. A list of properties expected to have 4-inch services and 6-inch services are identified in the following question.

Anticipated Addresses w/2-inch Services (Base Bid – 8 Services):

- Between 47 & 49 Decatur Street (serves multiple houses on Mystic Valley Parkway)
- Between 73 & 75 Decatur Street (serves multiple houses on Mystic Valley Parkway)
- Between 79 & 85 Decatur Street (serves multiple house on Mystic Valley Parkway)
- 37 Broadway
- 68 Broadway
- 70 Broadway
- 80 Broadway
- 98 Broadway

Anticipated Addresses w/2-inch Services (Bid Alt. #1 – 2 Services):

- 25 Hilton Street
- 31 Hilton Street

3. **Q: The Bid Form includes Item 2e Furnish & Install 4" Cement Lined Ductile Iron Pipe & Fittings with a quantity of 115-feet, however no 4-inch water main is shown on the drawings. Where is the 4-inch pipe to be installed. The location of the pipe is necessary to estimate the surface restoration which is incidental to the pipe installation.**

A: Item 2e (and the associated Item 3e) is reflective of large diameter water services (domestic and/or fire services) anticipated to be encountered at certain properties located within the Base Bid project area. Similarly, Item 2d (and the associated Item 2d) also includes anticipated large diameter water services anticipated to be encountered in the Base Bid project area. A list of properties expected to have 4-inch services and 6-inch services are identified below.

Anticipated Addresses w/4-inch Services (Base Bid – 5 Services):

- 108 Decatur Street
- 47 Broadway
- 78 Broadway
- 80 Broadway
- 98 Broadway

Anticipated Addresses w/6-inch Services (Base Bid – 4 Services):

- 108 Decatur Street
- 37 Broadway
- 47 Broadway
- 78 Broadway

4. **Q: Paragraph E on page 80 directs that contractor to “review with the Town water distribution plans to determine the extent of the by-pass, especially where dead ends and division gates may require by-pass piping.” Can these plans be provided so that the required layout of the temporary water system can be determined?**

A: Town water sketches (“distribution plans”) showing the Contract project areas extending out from the project areas to at least the next closest hydrants have been included at the end of this Addendum to help determine the extents of bypass. As noted in the Contract Specifications, temporary bypass must have two hydrant connections for redundancy. Note also that the existing distribution system with the Contract project areas, including water main distribution piping, known gates, and certain appurtenances, are shown on the Contract Drawings. In most cases, the new water main is being installed in the same location as the existing water main. In these instances, the existing distribution system is still shown in a lighter color below the proposed water main improvements. The project areas shown in the Contract Drawings are not expected to be impacted by dead ends or division gates.

5. **Q: Paragraph “E. TEMPORARY BYPASS WATER LINES AND SERVICES, on page 82 and 83 of the specification states that the “Temporary bypass system shall provide water at pressures that meet those Massachusetts Plumbing Code, particularly if pressure relief valves within buildings are bypassed during the work. Please note that static system pressures in the project area are approximately 100-110 PSI.” Can a list of buildings with pressure reducing valves be provided as well as the pressure zones?**

A: All project work in the Base Bid and in Bid Alternate #1 is being completed in the Town’s “Low Service” area where static pressures are approximately 80-psi or lower. As such it is not anticipated that additional pressure relief will be required on the bypass main or bypass services in the Base Bid area. Work for Bid Alternate #2 is being completed in an area with the higher static pressures (i.e. 100-110 psi). It is anticipated that bypass service will be required for two buildings in the Bid Alternate #2 area as noted on the Contract Drawings. The Bidder shall be responsible for ensuring that up to two buildings receive proper water pressure via bypass.

6. **Q: Can you please clarify the unsuitable bid item on the water improvement project. Is the material known to be unsuitable? If the material is deemed suitable can it go back in the trench? Have borings been performed on this project?**

A: Based on what has been observed during past projects, backfill in Town was historically completed with the material that was originally excavated and tends to be rocky fill with significant volume of stone greater than 3-inches in diameter. For the purposes of estimating quantities, the Town has been assumed that all soil excavated for water main installation is unsuitable and will have to be replaced with new gravel. However, at the discretion of the Town, material deemed suitable (i.e. dry material with stones less than 3-inches in

diameter) will be allowed to go back into the trench. Borings have not been performed on this project. Estimates of any trench rock have been based on rock shown on sewer main profiles or known outcroppings.

- 7. Q: On Broadway street the plans don't indicate what houses and what size service are affected or need to be renewed. Can you please provide a list, can you please clarify what size temporary water main the town would like. Your notes indicate that the water and gas are in the same trench, it would be very tough to remove the existing water pipe without encroaching or disturb the existing gas main. Would the town be willing to provide another avenue for the proposed water main on Broadway?**

A: It shall be assumed that service renewals will be required for all properties on Broadway from North Union Street moving east to Sunnyside Avenue. Service locations and sizes have been addressed in the responses to Questions #2 and #3 in this Addendum. It is understood that the close vicinity of the natural gas main to the existing water main in Broadway will make the work challenging. The Broadway corridor is already very full of existing utilities limiting options for a new water main corridor in the opinion of the Town which is why the Contract Drawing shown the main going back in the existing trench despite the close presence of the gas main. The Town is willing to consider means to provide further separation between the water main and gas main as possible during construction.

- 8. Q: The precast pressure reducing vault details indicate wall thickness must be a minimum of 12-inches. Are thinner walls (8-inch or 6-inch) allowed if the required loading can be achieved, or are 12-inch walls required?**

A: The Town will accept a design with thinner walls provided the design plans for the vault are stamped, signed, and dated by a Professional Engineer licensed in the State of Massachusetts and that the design of the vault will still meet the loading requirements noted in the Contract Specifications.

- 9. Q: The precast pressure reducing vault details show a sump. This is indicative of a cast-in-place construction, not precast construction. Is a sump required?**

A: A precast structure is desired. In lieu of a sump, concrete fill shall still be provided at a slope of ¼" per foot towards the side of the vault under the ladder access hatch as shown in the Contract Drawings so that a portable pump can be dropped into the vault to drain any standing water efficiently prior to maintenance access.

- 10. Q: The design for the precast pressure reducing vault call for aluminum hatches. Bolt-down steel hatches are more appropriate for hatches located within a roadway. Are aluminum hatches required?**

A: Aluminum hatches shall be provided as shown for the Gray Street PRV vault (Base Bid) in the Contract Drawings and Specifications. Hex-head bolt-down galvanized steel hatches shall be provided in lieu of aluminum hatches on the Hutchinson Road PRV vault (Bid Alternate #2).

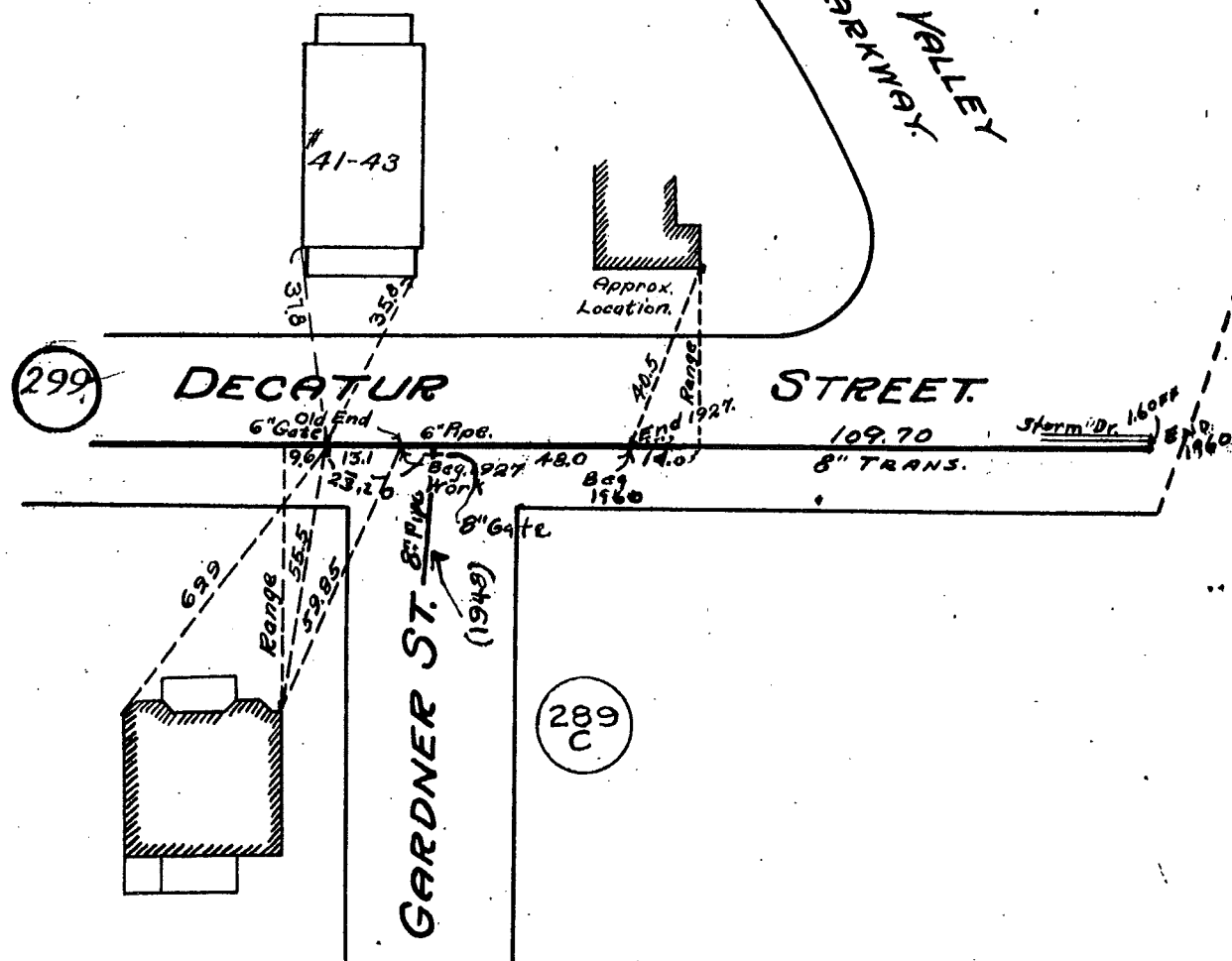
- 11. Q: The design call for the hatches on the precast pressure reducing vaults call for H-25 loading, though the design of the precast structures only call for H-20 loading. Do the hatches need to be designed for H-25 loading?**

A: For consistency, precast vaults and hatches shall both be designed for H-20 Full Traffic Loading.

L.S

298

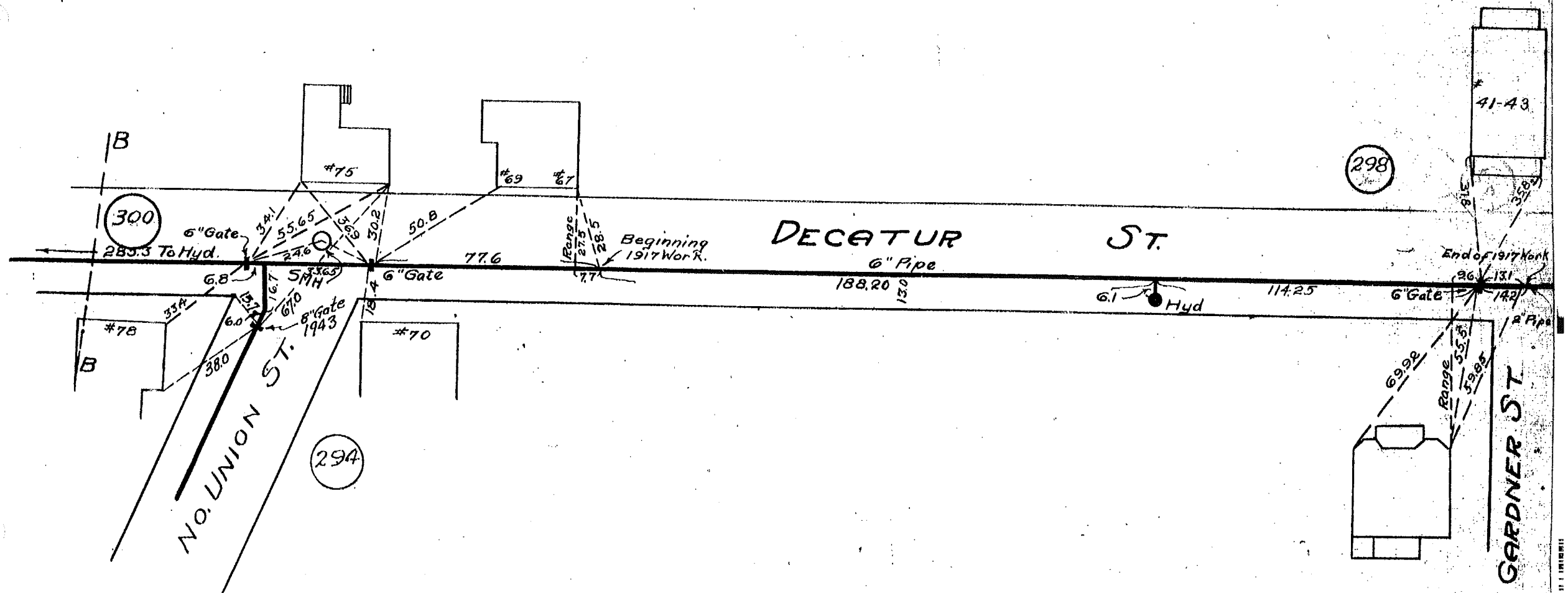
MYSTIC VALLEY
PARKWAY



1960
1927

MAIN CLEANED 1944

L.S.



MAIN CLEANED 1944

L S. 300

MYSTIC VALLEY PKWY

HYD. 1963

81.60
6" TRANS.

DRESSER

6" GATE
1.3 BHS 1963

New Hydrant.
1933.

DECATUR ST.

6" PIPE

155.0

285.3 To Gate

(301)

(295)

320.0 To Hyd.

1/2 bend

coupling
6" Tee
coupling

4.7
6" Gate

35.8

8" 6"

30.25

#104

EVERETT ST.

(456B)

#110

MAIN CLEANED 1944

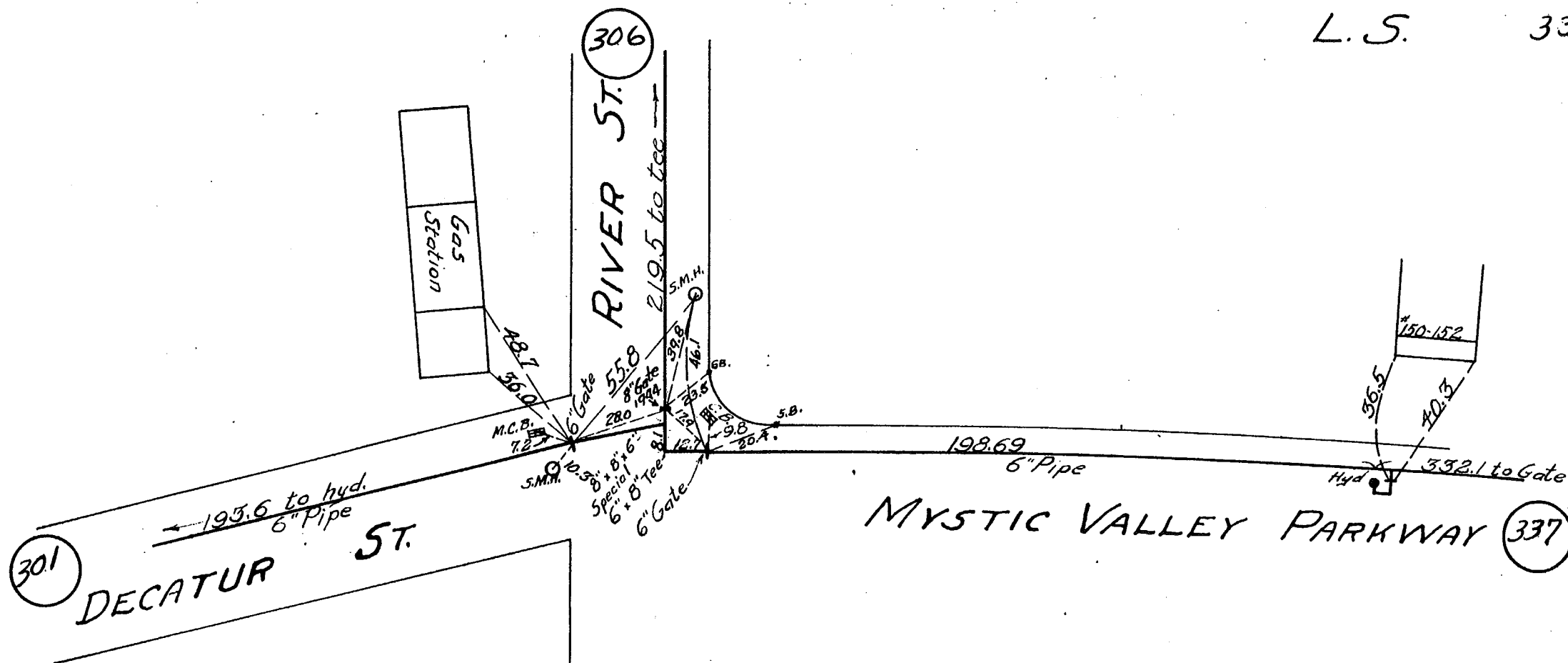
1963

301



Revised 1932

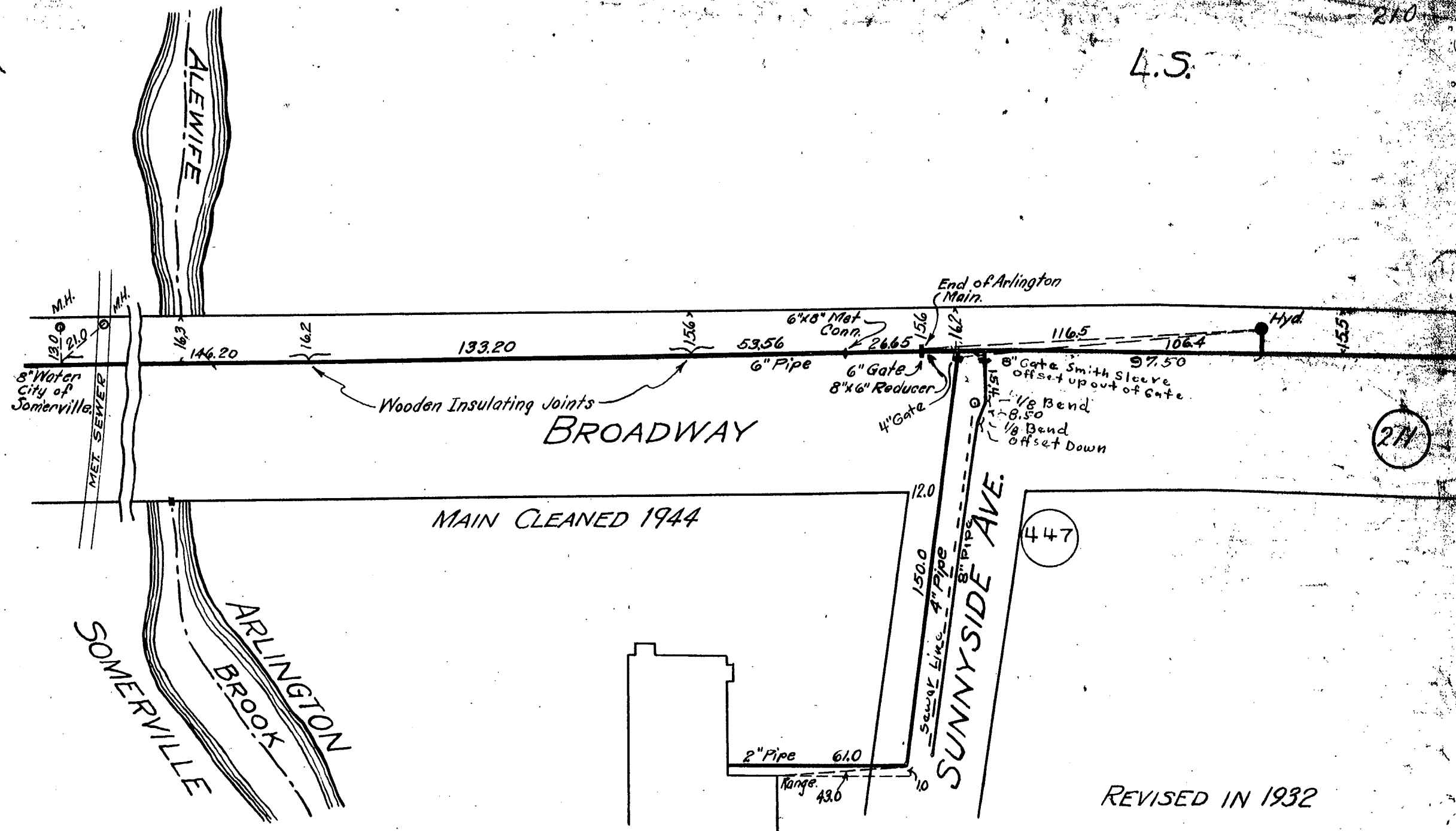
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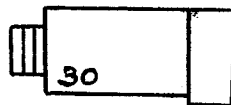
1926
Revised 1932

4.S.

210



L.S.



155

HYD.

8" PIPE

8"x6" Smith S/c
6" Gate

HYD.

155

210

BROADWAY

4.40
30.80
11.6
6" Gate
8"x8"x6" Tee
8.10
6" Gate
5.60
Hyd.

8" Pipe. Transite. 202.30
(1948)

27.60 6" Sprinkler #33

45.0
28.7
SILK ST
6" PIPE
125'

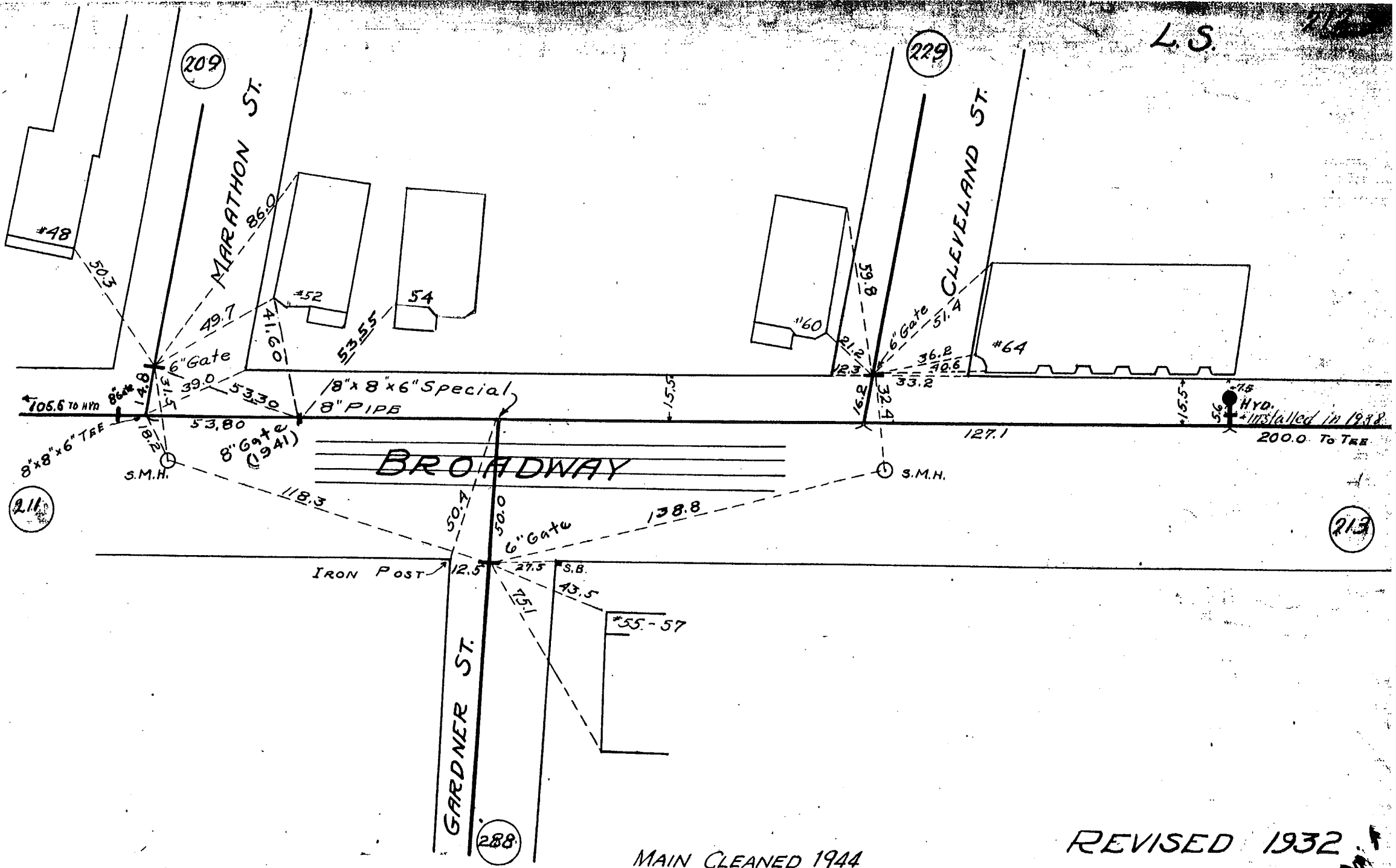
17.5
51.5
6" Tee
6"x8" Iner.
1' offset
Down

212

MAIN CLEANED 1944

REVISED

1948
1922



MAIN CLEANED 1944

REVISED 1932

LS

213

(233)

(237)

OXFORD ST

WINTER ST

G.B.

Gate 195

30.1

36.5

C.B.

8.4

Hyd. replaced (1959)

Hyd.

39.7

200.0 to Hyd.

269.4

See Sketch #480
For Ties to Gate

S.M.H.

27.1

29.6

8' Gate

47.1

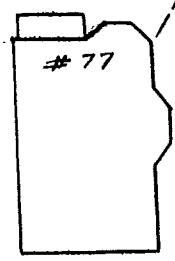
8" Iron

82.3

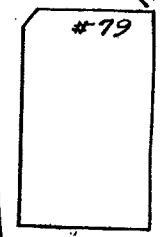
BROADWAY

(212)

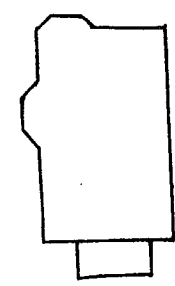
(214)



#77



#79

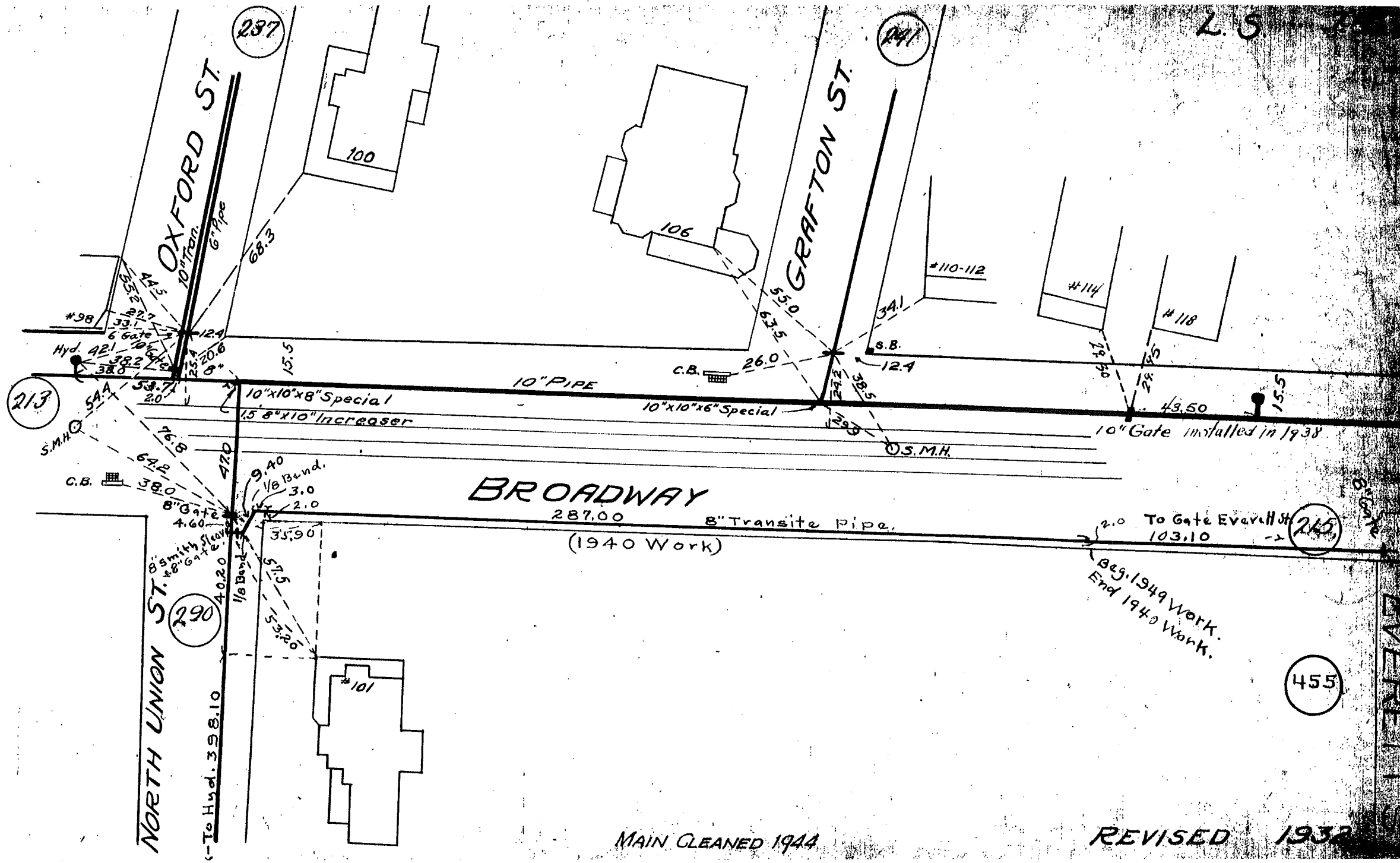


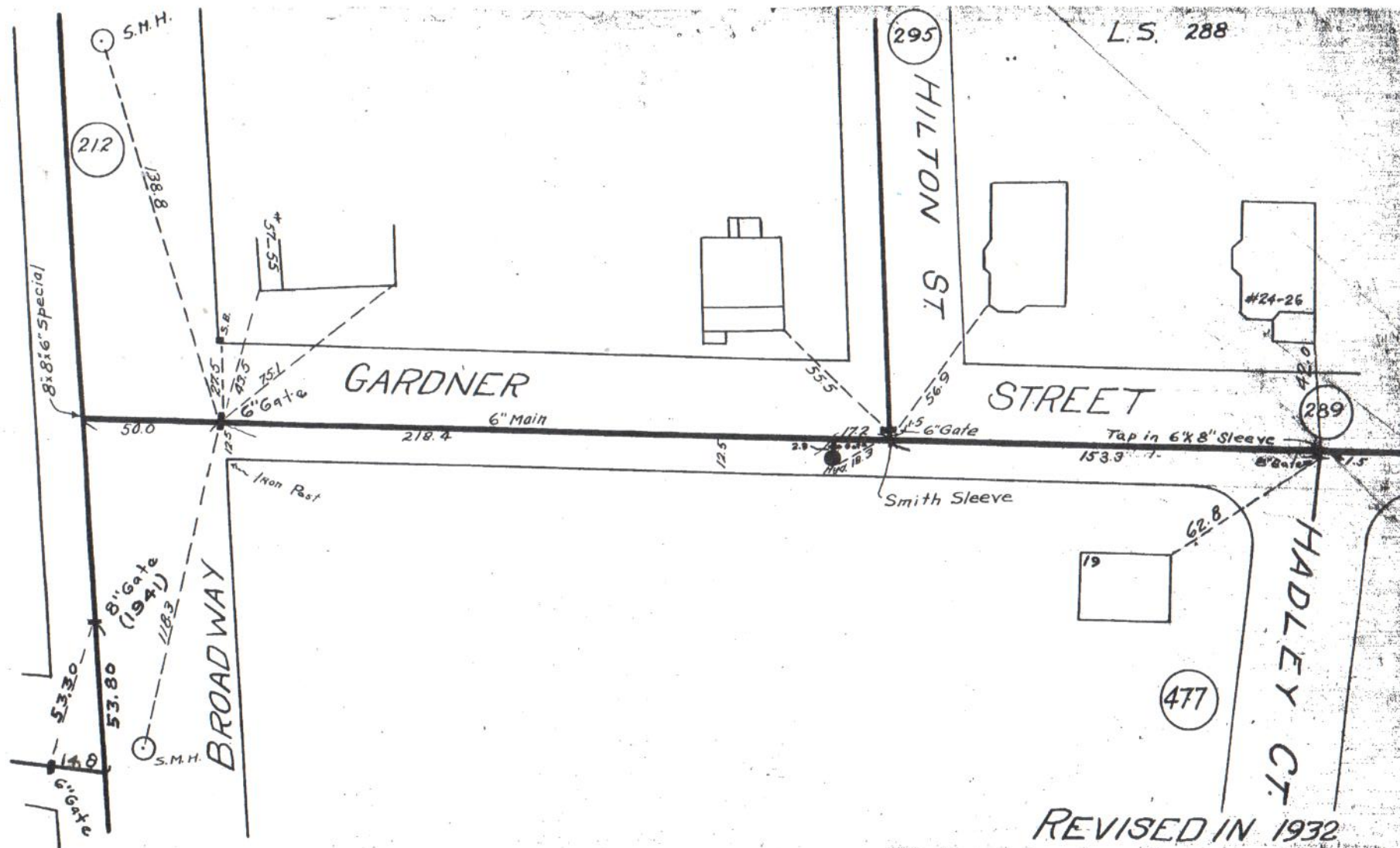
(481)

HEATH RD.

MAIN CLEANED 1944

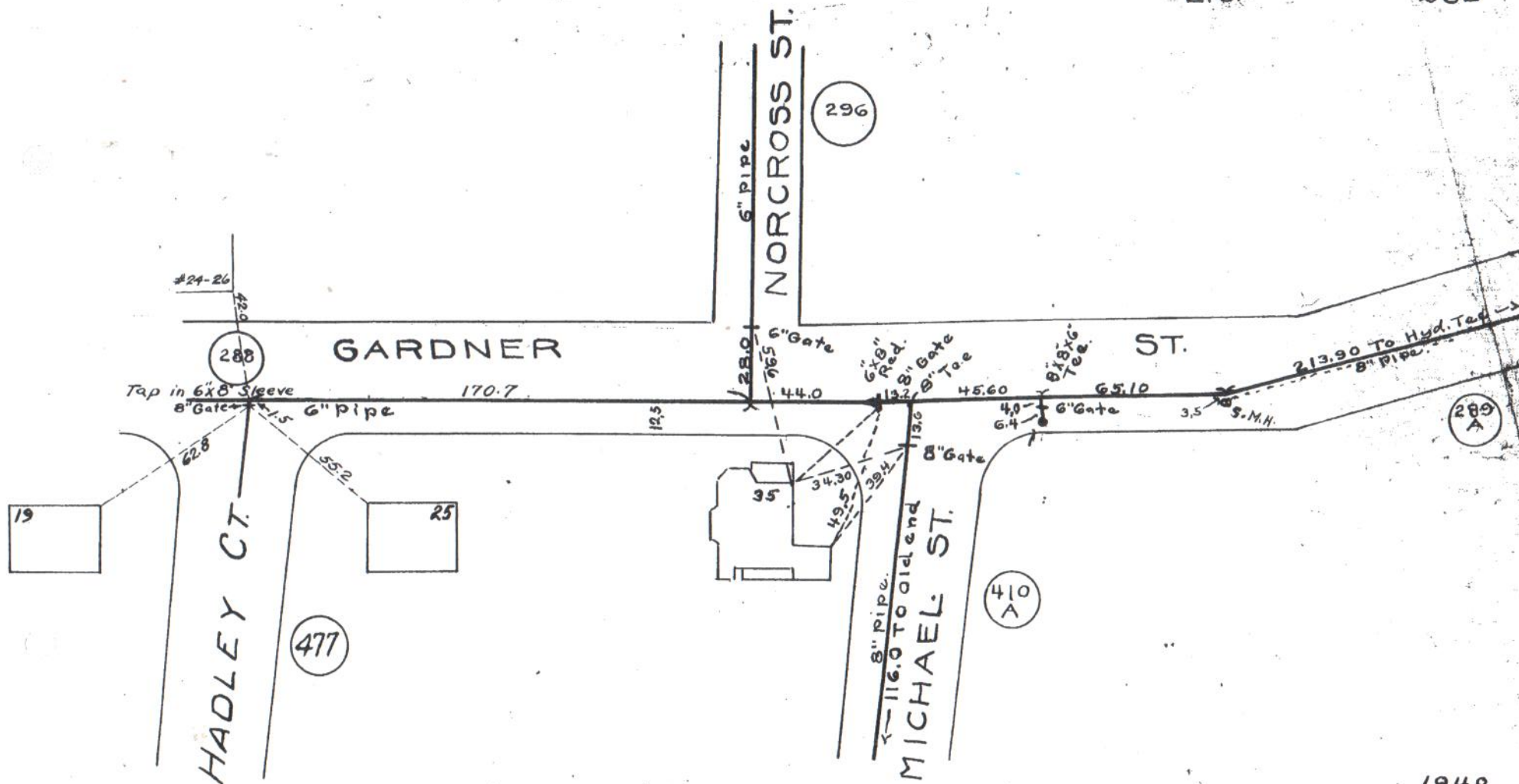
REVISED IN 1932





L.S.

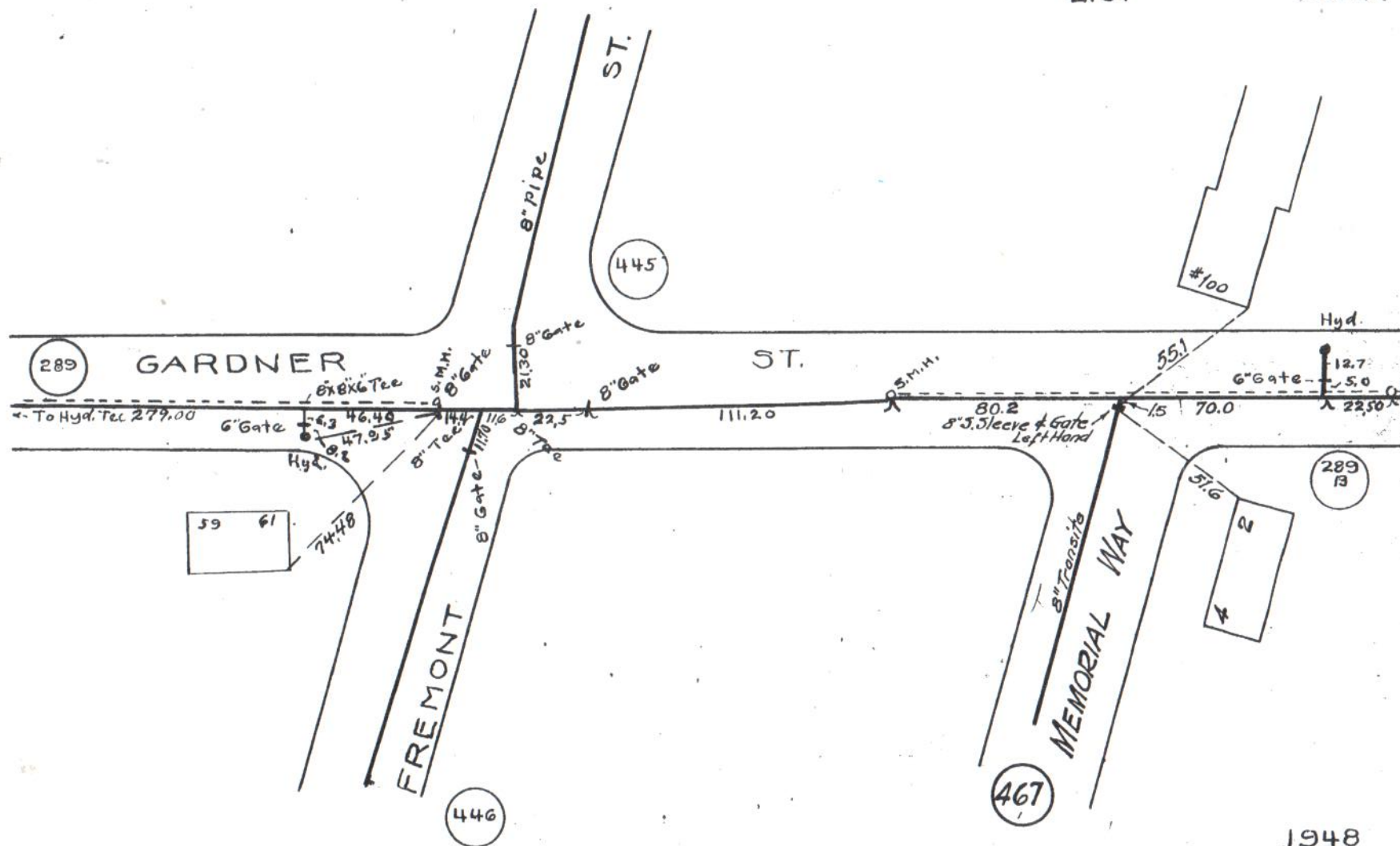
289



1948
1902

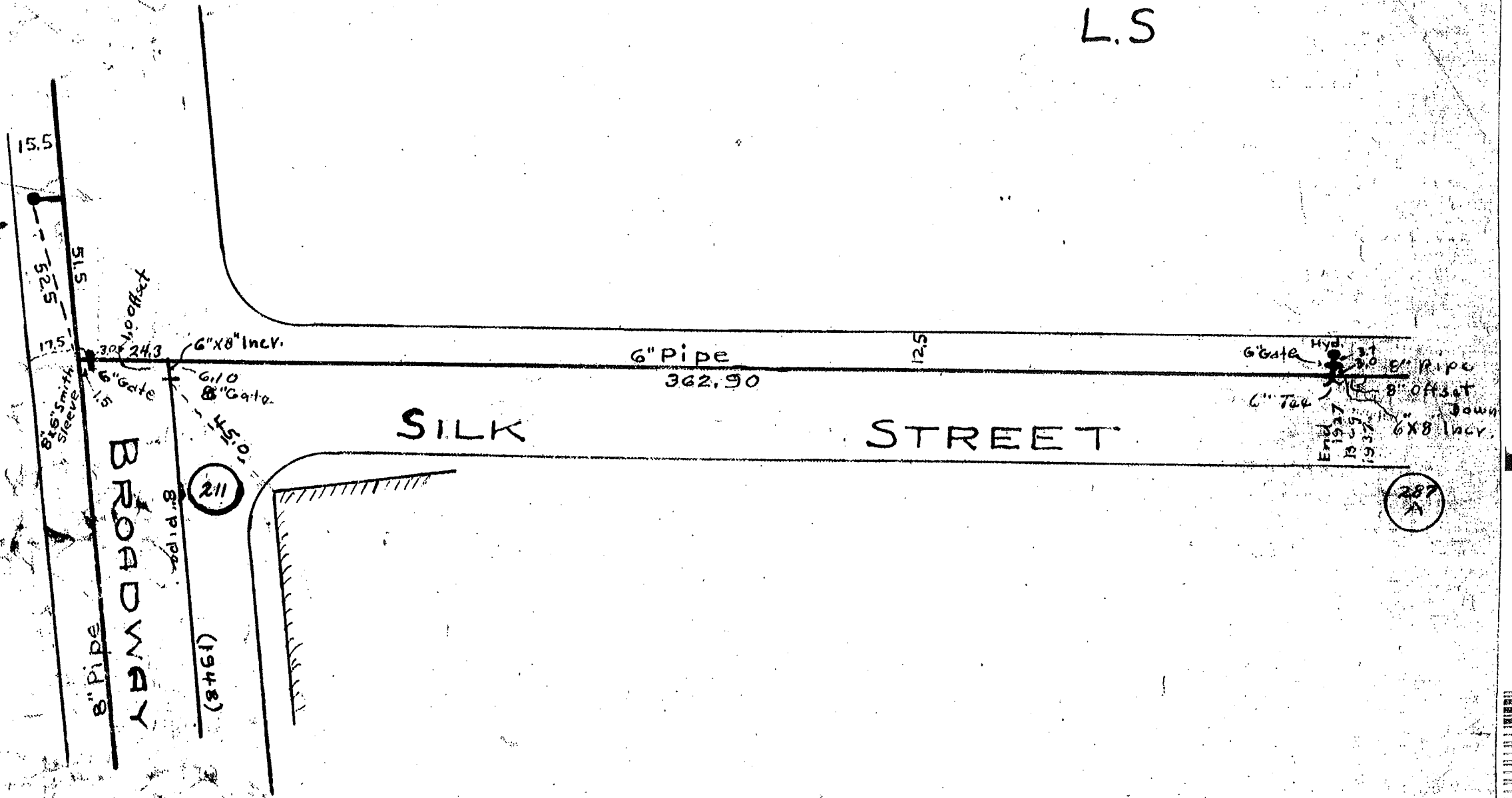
L.S.

289 A

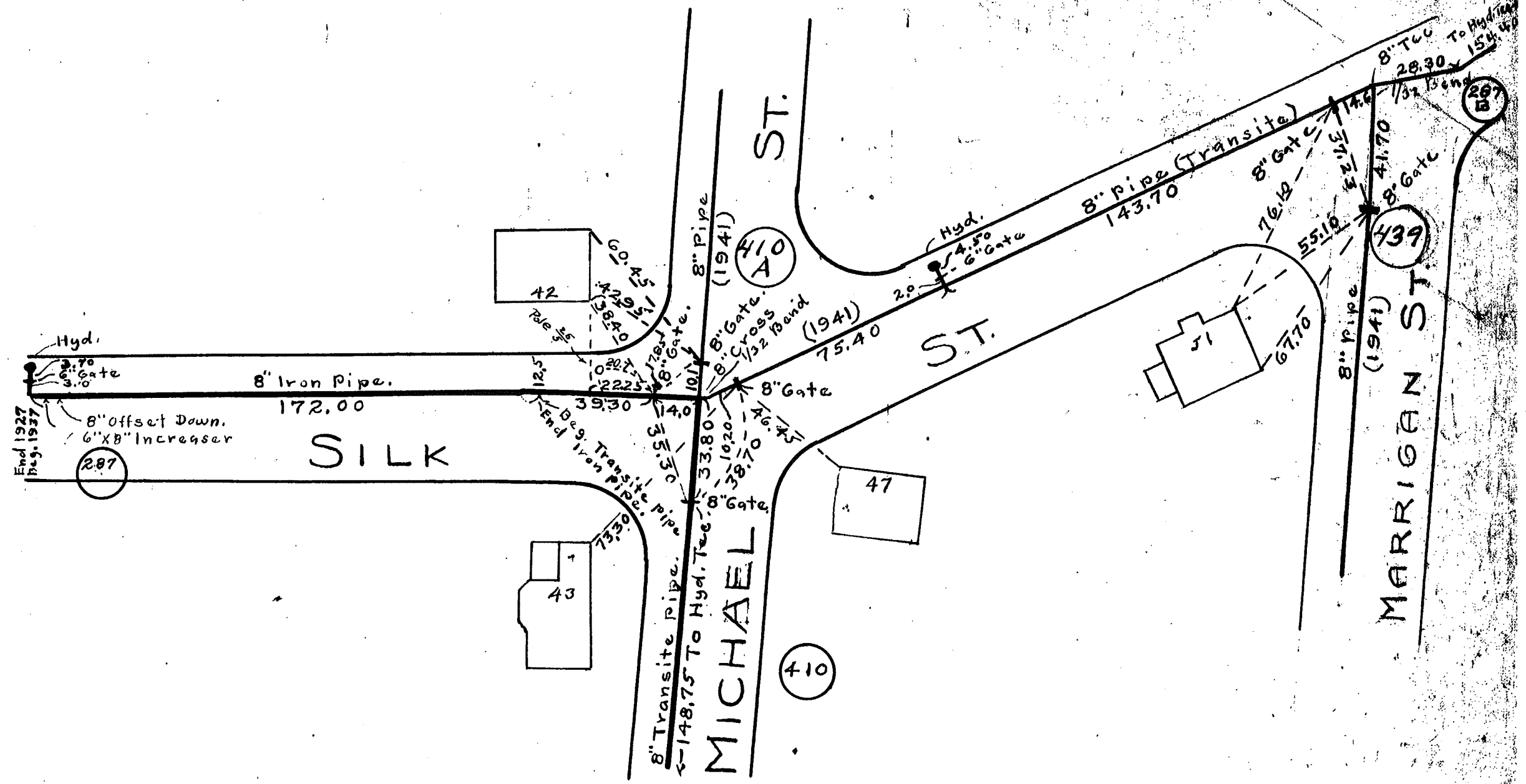


1948

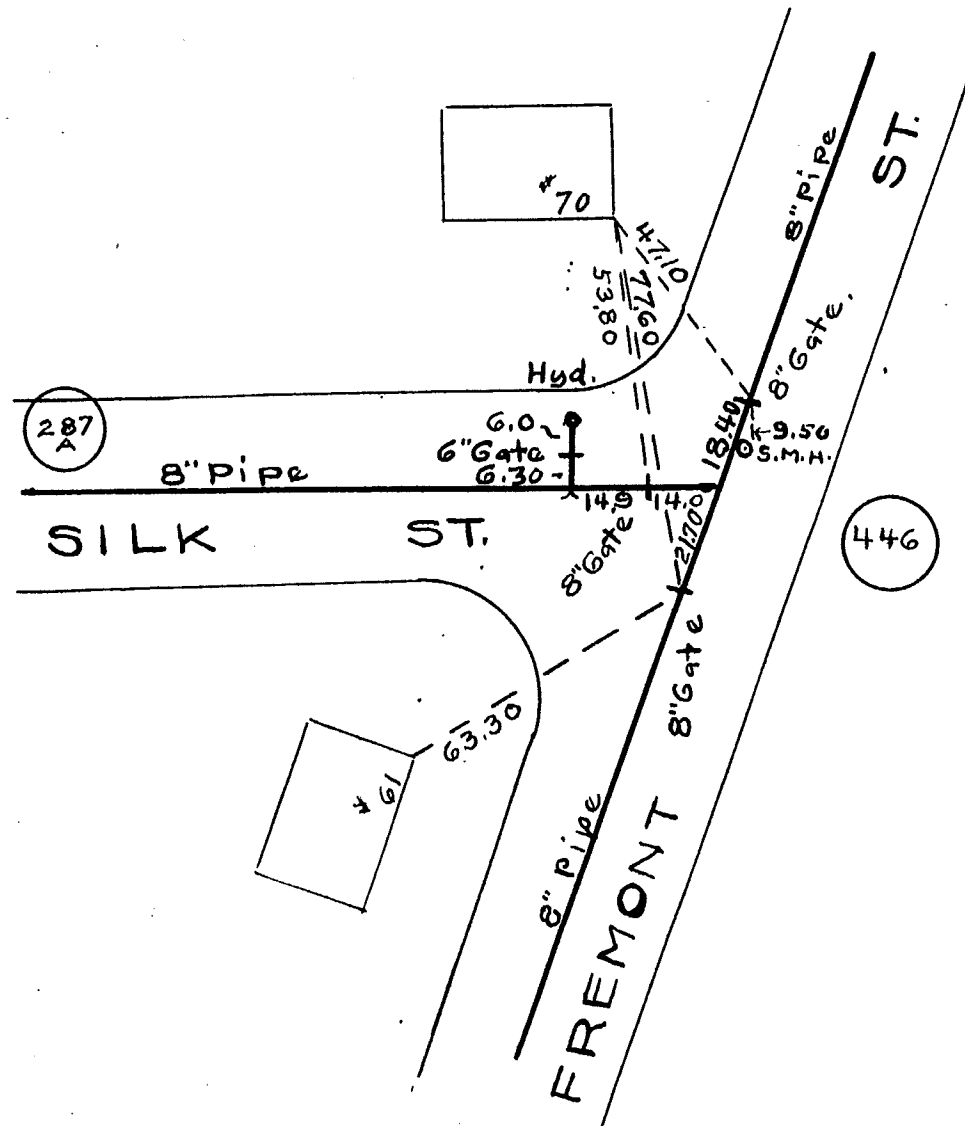
L.S



L.S. 287 A



1941
1937



L.S.

293

ST.

228

H
50

19.3
17.2
56.9

55.5
Gate 6"

Smith sleeve.

12.5

6" Pipe.
334.50

HILTON

ST.

Hyd. Reset in 1950

22.5

35-37

12.5

3.0
2.0

22.8

27.5

laid in 1951
6" B Iner.
beg. 1956 135.6 to Gate

6" GATE 8" Transite
laid in 1933
Reset in 1950

Smith Sleeve and Gate

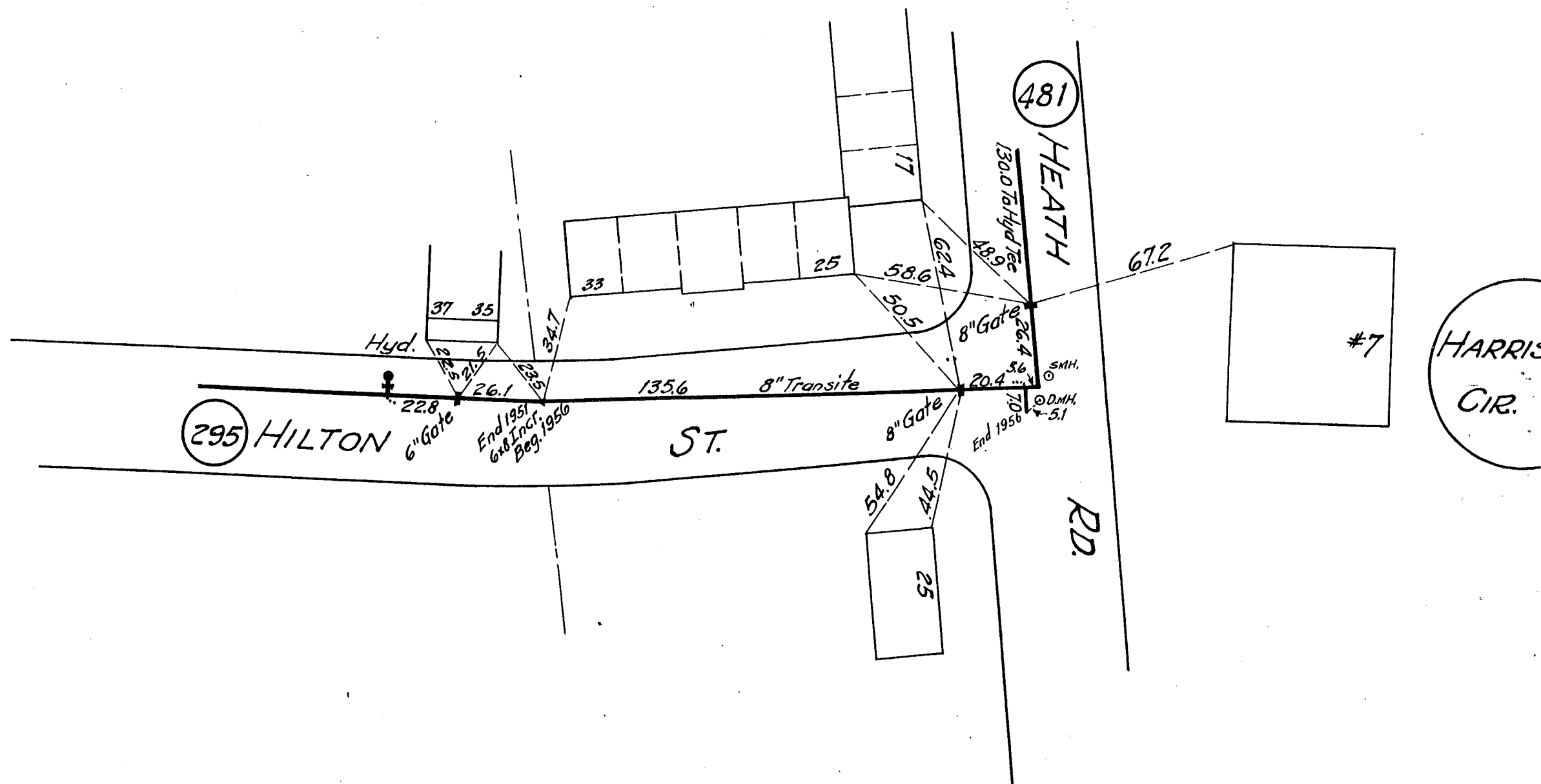
295
A

GARDNER

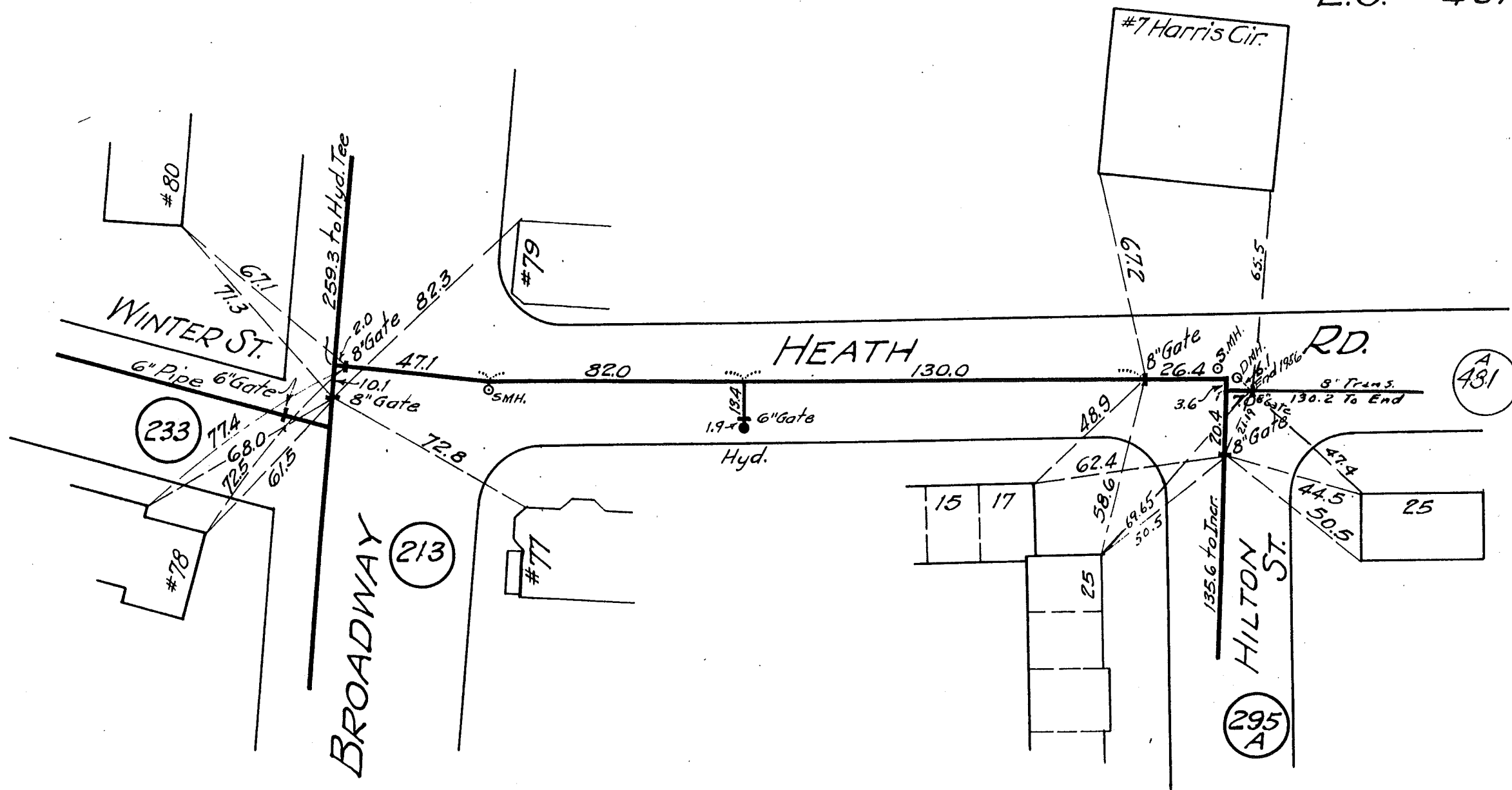


1951

1922



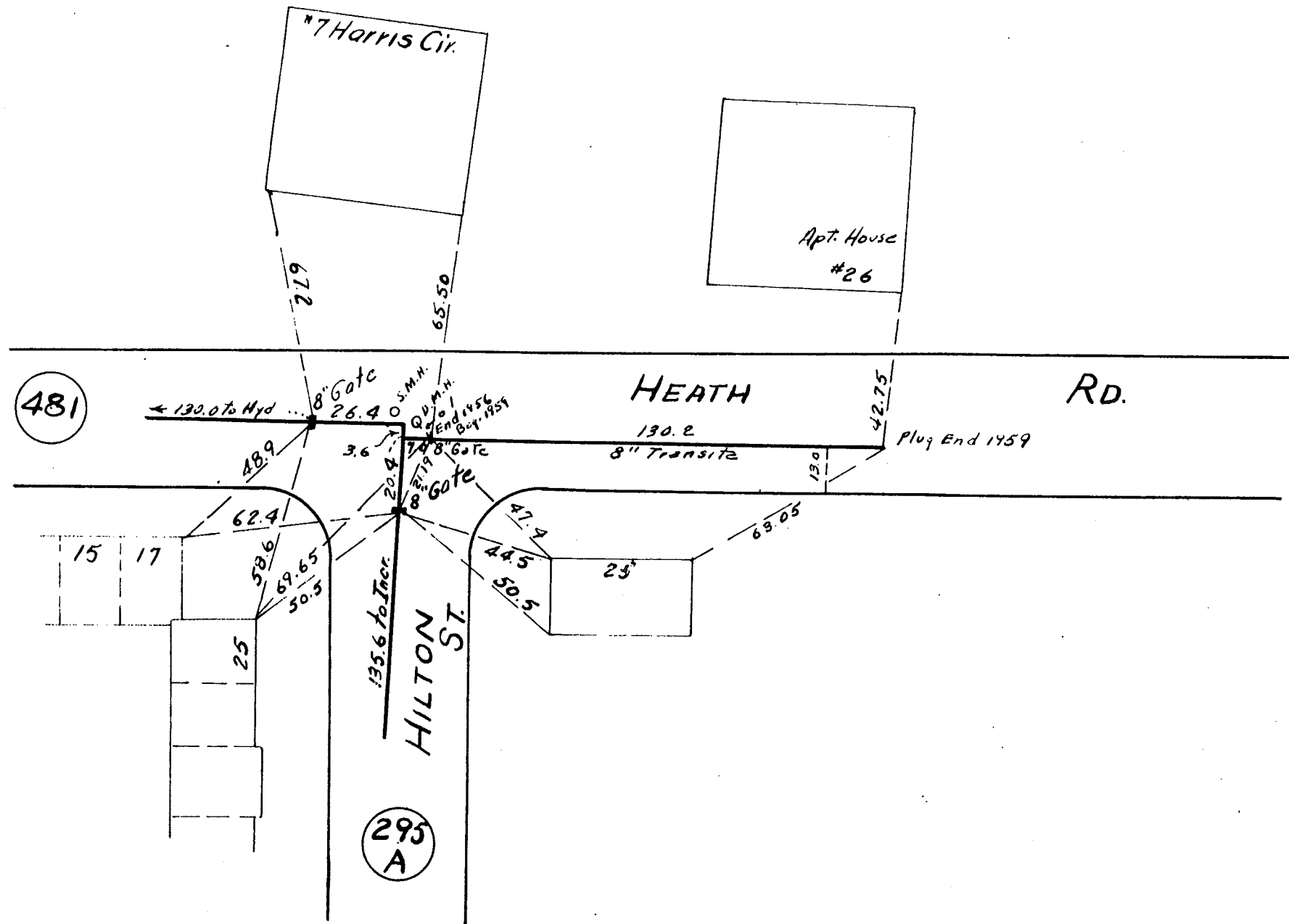
L.S. 481



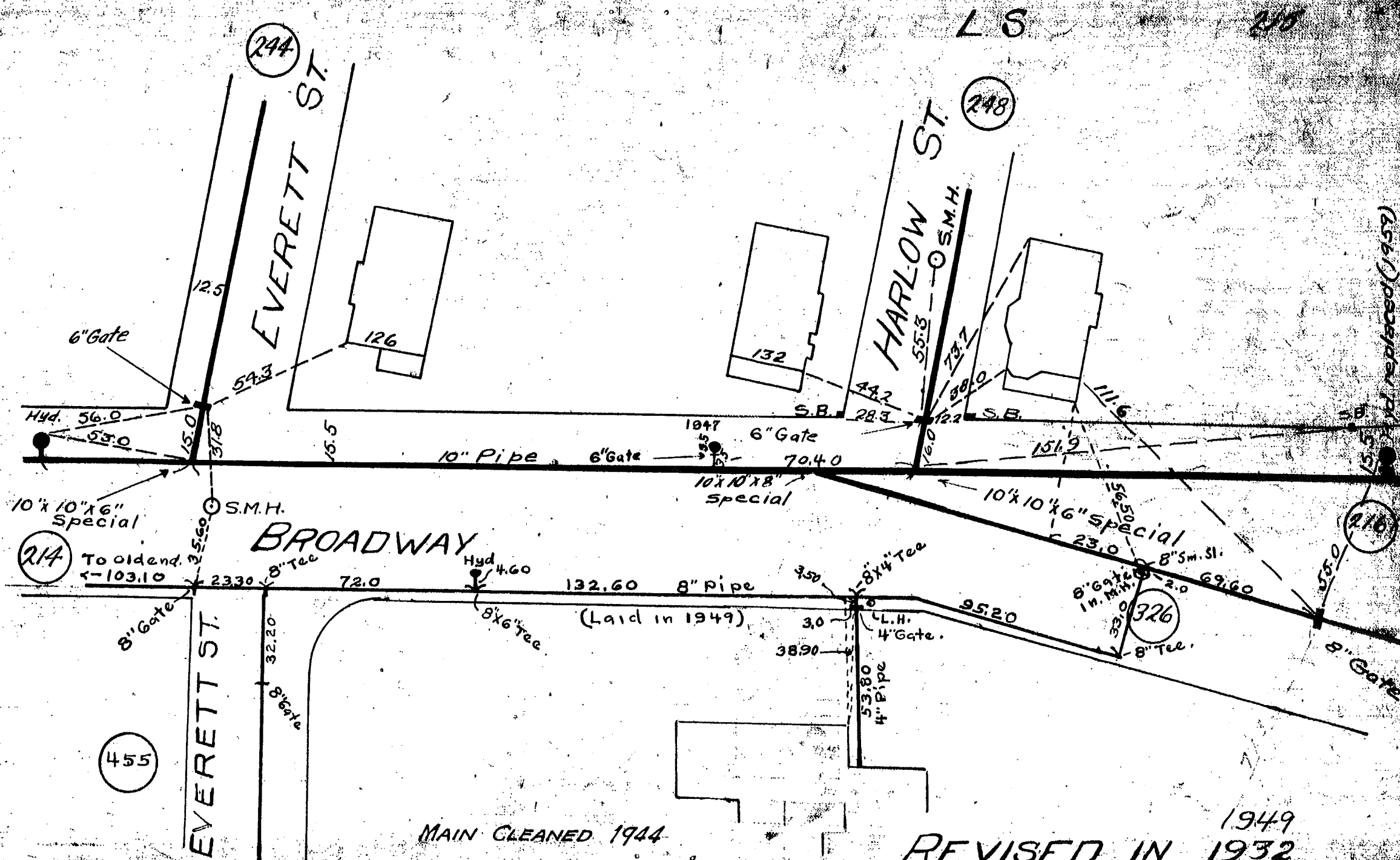
1959
1956

L.S.

481A



1956
1959



1949
REVISED IN 1932

(656) replaced (1959)